

What is claimed is:

1. An elevator car assembly for attenuating elevator system vibrations in an elevator system, the elevator car assembly comprising:

an elevator car sling for traveling in an elevator shaft and for supporting an elevator car platform, the elevator car sling having an upper portion and a lower portion;

one or more upper tension members for suspending an elevator car platform from the upper portion of the elevator car sling, the upper tension members comprising synthetic fibers;

one or more lower tension members comprised of synthetic fibers for securing an elevator car platform to the lower portion of the elevator sling; and

an elevator car platform suspended horizontally from the upper portion of the elevator sling by the upper tension member(s) and secured to the lower portion of the elevator sling by the lower tension member(s).

2. The elevator car assembly of claim 1, wherein the upper tension member(s) contain aramid fibers.

3. The elevator car assembly of claim 1, wherein the upper tension member(s) contain a fire resistant coating.

4. The elevator car assembly of claims 1, 2, or 3, wherein the upper tension member(s) have an in-use natural frequency below the frequencies of the elevator system vibrations.

5. The elevator car assembly of claims 1, 2, or 3, wherein the upper tension member(s) have a density of about .138 kg/m.

6. The elevator car assembly of claim 1, wherein the lower tension member(s) contain aramid fibers.

7. The elevator car assembly of claim 1, wherein the lower tension member(s) contain a fire resistant sheath.

8. The elevator car assembly of claim 1, 6, or 7, wherein the lower tension member(s) have an in-use natural frequency of vibration below the frequencies of the elevator system vibrations.

9. The elevator car assembly of claims 1, 6, or 7, wherein the lower tension members have an in-use frequency below 8 Hz.

10. The elevator car assembly of claim 1, wherein the upper and lower tension member(s) contain aramid fibers.

11. The elevator car assembly of claim 1, wherein the upper and lower tension members contain a fire resistant sheath.

12. An elevator car suspension system for attenuating elevator system vibrations comprising:

a plurality of upper tension members for suspending an elevator car from an upper portion of an elevator sling, the upper tension members comprising synthetic fibers.

13. The vibration attenuating elevator car suspension system of claim 12, wherein the upper tension members contain aramid fibers.

14. The vibration attenuated elevator car suspension system of claim 12, wherein the upper tension members are fire resistant.

15. The vibration attenuating elevator car suspension system of claim 14, wherein the upper tension members have in-use natural frequencies less than the frequencies of the elevator system vibrations.

16. The vibration attenuating elevator car suspension system of claims 12 wherein the upper tension member have a density less than 2.5 g/cc.

17. A method for isolating an elevator car platform from elevator system vibrations comprising:

suspending the elevator car from an upper portion of an elevator sling with one or more upper tension member(s), the tension member(s) manufactured from synthetic fibers; and  
securing the elevator car platform to the lower portion of the elevator sling with one or more lower tension member(s).

18. The method of claim 17 wherein the upper tension member(s) have an in-use natural vibration frequency below the frequencies of the elevator system vibrations.

19. The method of claim 17 wherein the lower tension member(s) have an in-use a density of about .138kg/m.

20. The method of claim 17 wherein the upper and lower tension member(s) have an in-use natural vibration frequency of 8 Hz. or less.

21. The method of claim 17 wherein the tension member(s) contain aramid fibers.

22. The method of claim 17 wherein the tension member(s) contain a fire-resistant sheath.

23. A method for isolating an elevator car from elevator system vibrations comprising:

suspending the elevator car from an elevator sling with upper tension members, the upper tension members containing synthetic fibers.

24. The method of claim 22, wherein the upper tension members have an in-use natural frequency of vibration less than the frequencies of vibrations of the elevator system.

25. The method of claim 21, wherein the upper tension members have an in-use natural frequency of vibration of less than 8 Hz.

26. The method of claim 21, wherein the upper tension members contain aramid fibers and wherein the tension members have a density of about .138kg/m.